GNSSA Program

CMA 4024 GNSSA Module - Specifications

ACCURACY (Without Selective Availability)

Horizontal Position	22.5 meters, 95% S/A off
Altitude	30 meters, 95% S/A off
Velocity	0.05 knot. 95% S/A off
Track Angle	0.5° (V > 120)
Vertical Velocity	200 feet per minute
Time	2 microseconds
GPS Measurement Accuracy	0.15 meters

ACQUISITION TIMES

Initialized First Fix	105 sec. Max; 95% confidence
No Initialization	10 min. worst case; 3 min. nominal
Power Drop-out < 10 seconds	5 sec. typical
Satellite Re-acquisition	5 sec. typical

PHYSICAL/ENVIRONMENTAL

Size	6.5” x 4.5” x .6”
Weight	< .7 lbs
Temperature Range	-55 to + 85 ° C
Altitude Range	Between 15,000 and 60,000 ft

NovAtel

CMA 4024 GNSSA Module - Specifications Continued

ELECTRICAL POWER

Operating Power	12.5 Watts max.	
Input Power	+3.3 ± .25 VDC	2700 mA
	6.8W	
	+5 ± .25 VDC	300 mA
	1.5W	
	+14 + 1.5 - 0.5 VDC	200 mA
	2.8W	
	-14 + 1.5 - 0.5 VDC	80 mA
	1.0W	
	TOTAL	12.1W

RELIABILITY

Operational Hours MTBF	60,000 hours

SENSITIVITY

Acquisition Sensitivity	-134.5 dBm 100K Sky Noise
Tracking Sensitivity	3 dB less C/No than acquisition

INTERFERENCE

In-band CW Rejection	RTCA/DO-229 Appendix C
Out-of-band Rejection	RTCA/DO-229 Appendix C

NovAtel

CMA 4024 GNSSA Module - Specifications Continued

INTERFACES

Inputs	8 ARINC 429, 2 RS-232, 2 RS-422
Outputs	5 ARINC 429, 2 RS-232, 2 RS-422
	2 28V valid discrete
	3 1-Hz time marks

SOFTWARE

Language	Ada
Level	DO-178B level B
Processor	64-bit K6-2

BITE

Continuous coverage > 95% fault decision

CONFORMITY

ARINC 429-12, ARINC 743A, DO-160D, DO-217 (optional), DO-178B, DO-229, DO-245, TSO-C129A, TSO-C145

NovAtel